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Briefing Report to the Honorable
Charles E. Bennett,
House of Representatives

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June 1986

AIRLINE INSPECTIONS

Comparison of Airlines With and Without Military Contracts





UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

June 20, 1986

B-223318

The Honorable Charles E. Bennett
House of Representatives

Dear Mr. Bennett:

In your March 21, 1986, letter and in subsequent meetings with your office, you expressed concern about the safety of U.S. troops on charter airlines. Specifically, you requested that we compare the results of the Federal Aviation Administration's (FAA) National Air Transportation Inspection (NATI) for airlines having contracts with the Military Airlift Command (MAC) with those airlines not contracting with MAC. MAC contracts with airlines for long-range and short-range international passenger and cargo airlift as well as domestic operations lasting more than 90 days. On June 3, 1986, we briefed you on the results of our work. This briefing report summarizes our findings.

The Secretary of Transportation, in February 1984, directed FAA to conduct an unprecedented nationwide inspection of the safety of the air transportation industry. This intensive inspection, known as NATI, evaluated airlines operating under Federal Aviation Regulation Part 121 (operators of large aircraft) and commuter airlines operating under Part 135. During the NATI inspection (March-June 1984), FAA estimated that it performed as many inspections as it did in the course of a full year's routine inspection activity.

FAA conducted NATI in two phases. In Phase I, FAA inspected 327 airlines, including 141 Part 121 airlines, 13,467 inspections in all. FAA used Phase I results to assess the compliance level of the airline industry and to select airlines requiring further investigation for the more in-depth Phase II inspections. FAA assembled a task force to review all the inspection reports. The task force classified inspectors' adverse comments as severity levels 1, 2, or 3, with severity level 3 representing situations having the highest potential for unsafe flight conditions (see page 7 for definitions and examples).

To identify airlines with MAC contracts, we used information provided to FAA by MAC. Because 21 of the 22 airlines with MAC contracts in the NATI program operated larger aircraft under Part 121, we agreed to focus our review on Part 121 airlines. In our analysis, we compared the NATI inspection results for the 21 airlines with MAC contracts with the results for the 120 airlines

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not having MAC contracts. The data used for our analysis were obtained from a publicly available FAA report entitled Memorandum on Evaluation of National Air Transportation Inspection Program Inspection Reports, dated April 1985.

Our analysis of NATI inspection data shows that airlines with MAC contracts, as a group, had a lower level of compliance with FAA regulations than airlines not contracting with MAC. Specifically, we found that (1) FAA selected a higher percentage of MAC contract airlines for the more in-depth Phase II NATI inspections; (2) MAC contract airlines had a higher rate of severity level 3 comments than airlines without MAC contracts; and (3) MAC contract airlines had a higher percentage of unsatisfactory inspections than other airlines. We did not determine the reasons for differences between MAC and non-MAC contract airlines.

On May 14, 1986, during a hearing before the Subcommittee on Aviation, House Committee on Public Works and Transportation, we testified that FAA needs to improve its criteria for allocating inspection resources among the nation's airlines. Examples of criteria needed are those characteristics that FAA identified through NATI that are common to airlines with safety deficiencies (see page 5). When allocating inspection resources, FAA can also use information such as the relative safety record of military contract airlines as compared to other airlines. Recently, FAA has targeted selected airlines with military contracts for intensive inspection under its new National Inspection Plan. In forthcoming reports on FAA's airline inspection program and on the management of the Department of Transportation, we will address the issue of FAA's inspection planning more fully.

At the request of your office, we did not obtain official agency comments on this report. We did, however, discuss its contents with Department of Transportation and FAA officials, who agreed with the data presented. Also, as arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the date of this letter. At that time, we will provide copies to the Secretaries of the Departments of Transportation and Defense, the Administrator, FAA, and other interested parties. If you have any further questions on these matters, please contact me at 275-7783.

Sincerely yours,


Herbert R. McLure
Associate Director

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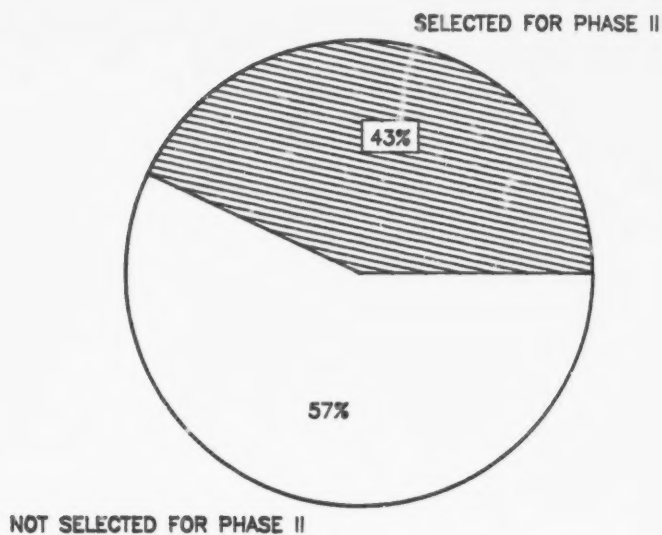
ABBREVIATIONS

FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
GAO	General Accounting Office
MAC	Military Airlift Command
NATI	National Air Transportation Inspection

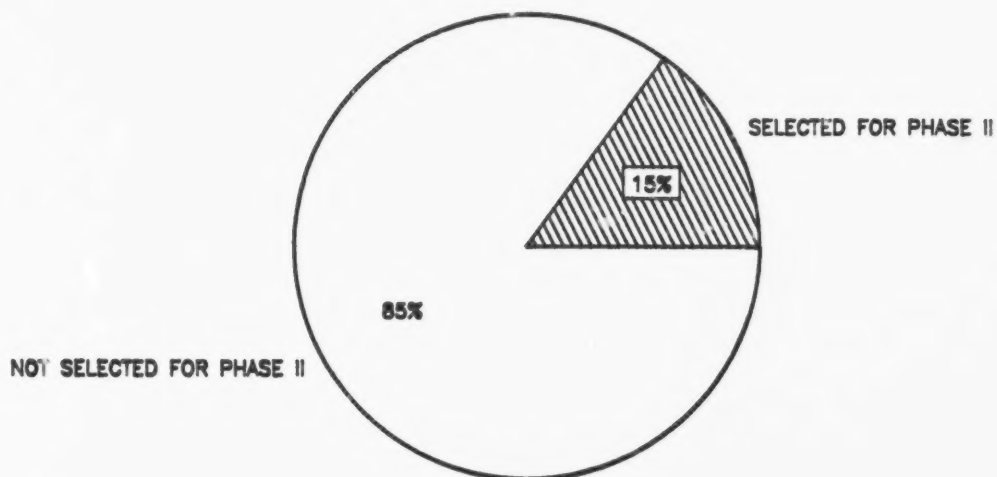
Figure 1

Percentage of MAC Contract Airlines
Selected for Phase II Compared With
Airlines Without MAC Contracts

AIRLINES WITH MAC CHARTERS



AIRLINES WITHOUT MAC CHARTERS



SECTION 1

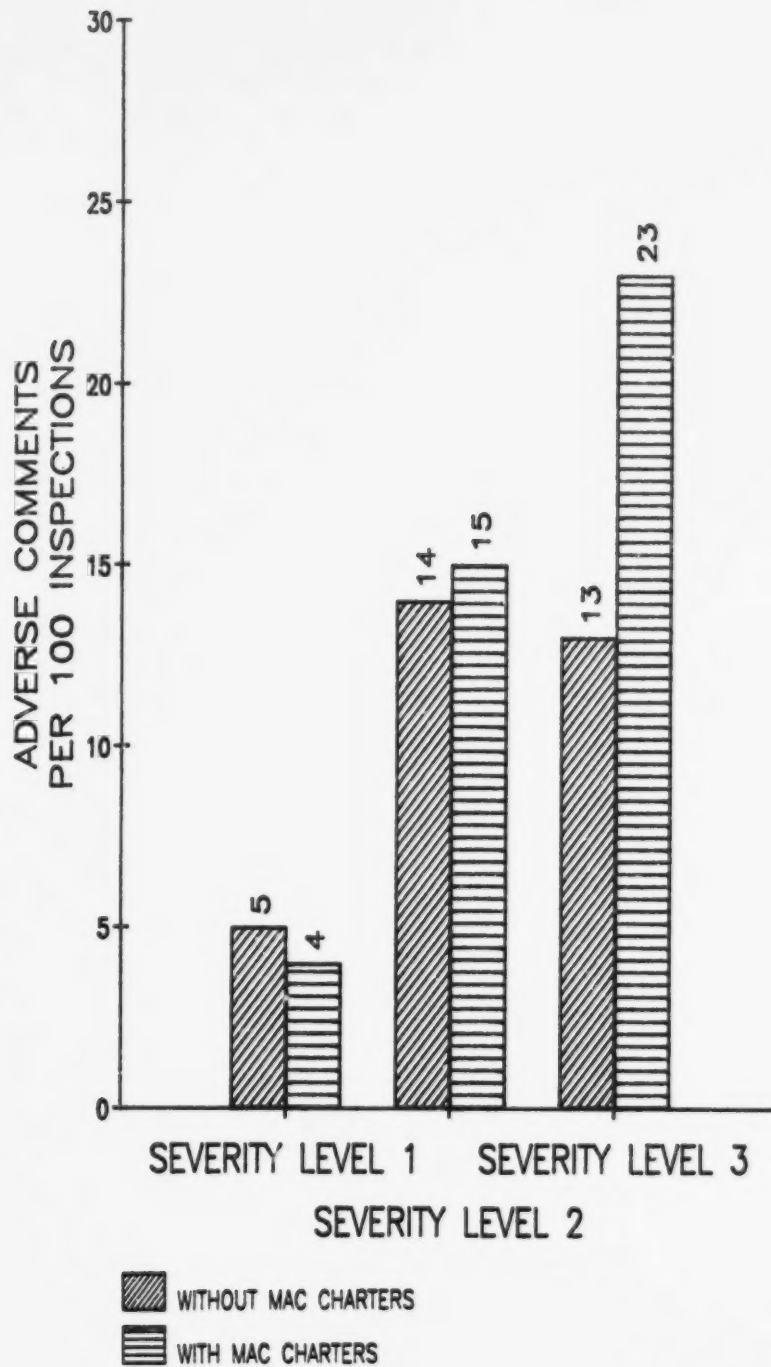
FAA SELECTED A MUCH HIGHER PERCENTAGE OF MAC CONTRACT AIRLINES FOR PHASE II NATI INSPECTION COMPARED WITH OTHER AIRLINES

FAA selected airlines for NATI Phase II in-depth inspections when deficiencies identified during Phase I of the NATI program proved significant enough to warrant further inspection. FAA found that many airlines selected for Phase II inspections exhibited one or more of the following characteristics. These airlines

- performed significant amounts of maintenance and training by contract;
- recently experienced a major change in the scope or type of operation, such as significant route expansion, fleet expansion, or introduction of new types of aircraft;
- experienced financial, labor/management, or other corporate problems;
- lacked internal audit procedures; or
- had management skills and philosophies incompatible with sound safety practices.

For Phase II inspection, FAA selected a total of 27 Part 121 airlines. Included in this group were 9 of the 21 airlines (43 percent) with MAC contracts. In addition, FAA selected 18 of the 120 airlines (15 percent) without MAC contracts for Phase II inspection.

Figure 2
Rate of Adverse Comments
For Airlines With MAC Contracts
and Other Airlines



SECTION 2

THE RATE OF ADVERSE COMMENTS WAS HIGHER FOR MAC CONTRACT AIRLINES THAN FOR OTHER AIRLINES

FAA formed a task force of experts to review the NATI inspection reports. During the review, this task force classified adverse comments into three categories: severity levels 1, 2, and 3. An adverse comment at any of these three levels indicates that an unsatisfactory condition was discovered during an inspection. Definitions and examples of the severity levels are provided below:

SEVERITY LEVEL 1:

Flight safety not directly or adversely affected, or had an extremely low potential to affect safety.

Example: Operations specifications lists an aircraft no longer operated by the airline.

SEVERITY LEVEL 2:

Little effect or little potential effect on flight safety.

Example: Contradictory maintenance deferral procedures exist.

SEVERITY LEVEL 3:

Safety of flight directly or adversely affected, or high potential for an unsafe condition existed.

Example: Eighteen specific findings show failure to perform maintenance and inspections in accordance with approved programs. Failure to adhere to good practices or using improper maintenance process.

Airlines with MAC contracts and other airlines differed little in the rate of severity level 1 and severity level 2 adverse comments. Considerable disparity between the two groups existed, however, in regard to the rate of severity level 3 adverse comments. Airlines with MAC contracts had 23 severity level 3 adverse comments per 100 inspections, while airlines without MAC contracts had 13 severity level 3 adverse comments per 100 inspections.

Table 1

Ranking of MAC Contract Airlines With Severity Level 3
Adverse Comments Above the 11.8 Median for all Airlines

<u>Airline</u>	<u>Number of severity level 3 adverse comments per 100 inspections</u>	<u>Ranking among all airlines in rate of severity level 3 comments</u>
Rich International	119.2	4
United Air Carriers	83.3	6
Arrow Airways	69.9	9
South Pacific Island Airways	63.2	10
Jet Charter	45.0	13
Pan American	43.5	14
Capitol International Airways	35.1	24
Key Airlines	30.8	28
Flying Tiger Line	26.3	34
Transamerica Airlines	25.8	36
World Airways	23.5	38
Air Resorts	22.2	42
Eastern Airlines	21.4	45
Hawaiian Airlines	19.4	53
American Trans Air	17.1	57
Evergreen International	16.5	58
Reeve Aleutian Airways	14.3	60
United Airlines	13.5	63
Airlift International	12.5	67

Source: FAA, Memorandum on Evaluation of National Air
Transportation Inspection Program Inspection Reports,
April 1985.

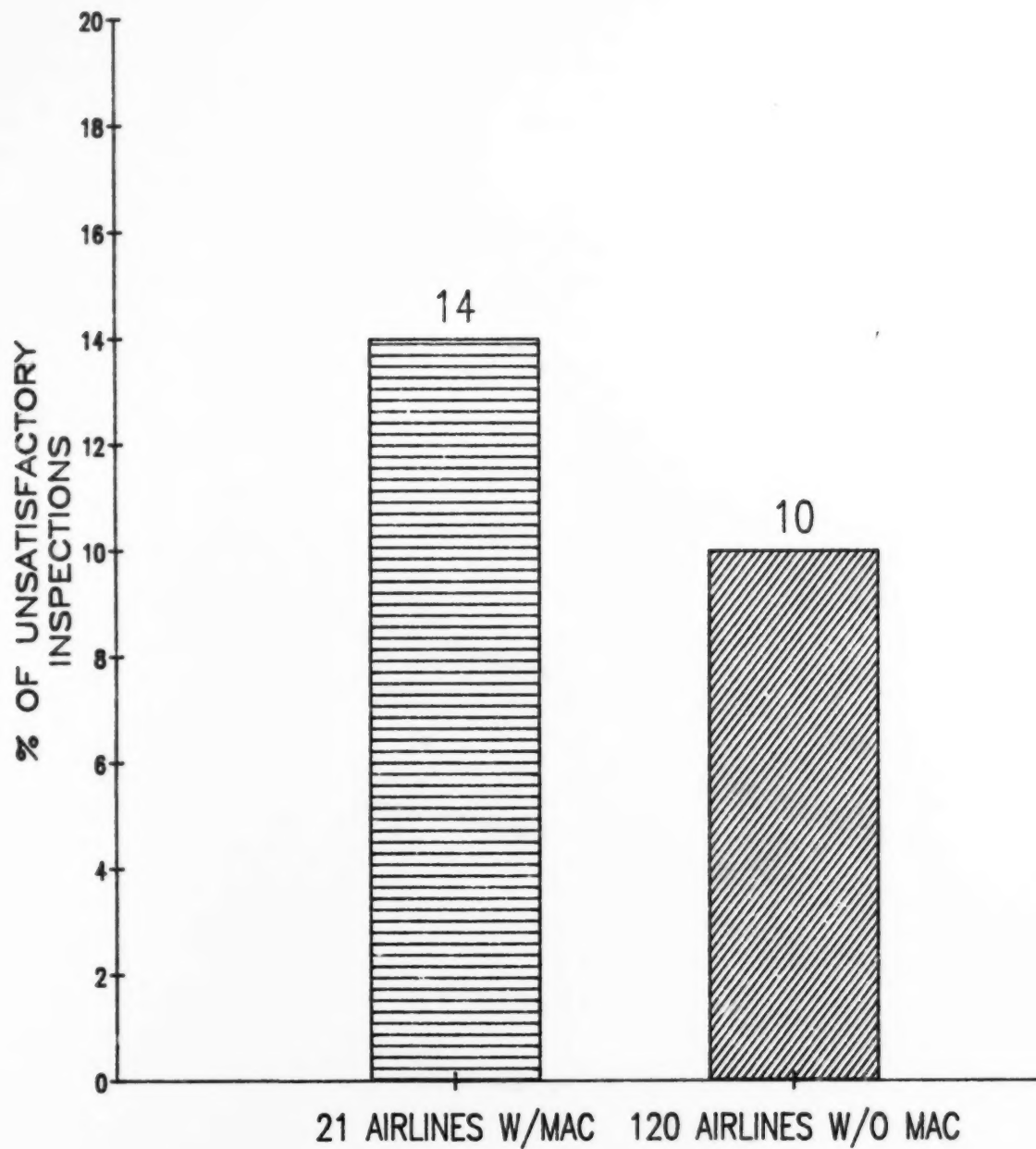
SECTION 3

MOST AIRLINES WITH MAC CONTRACTS HAD A HIGHER RATE OF SEVERITY LEVEL 3 ADVERSE COMMENTS THAN THE MEDIAN FOR ALL AIRLINES

The median rate of severity level 3 adverse comments for all airlines was 11.8 comments per 100 inspections. That is, 70 of the 141 airlines had a higher rate of adverse comments than the median of 11.8, while the remaining 70 had a lower rate than the median.

Of airlines with MAC contracts, 19 of 21 (90 percent) had higher rates of severity level 3 adverse comments than the 11.8 median for all airlines.

Figure 3
Percentage of Unsatisfactory
Inspections for Airlines With MAC
Contracts and Other Airlines



SECTION 4

AIRLINES WITH MAC CONTRACTS HAD A HIGHER PERCENTAGE OF UNSATISFACTORY INSPECTIONS THAN OTHER AIRLINES

FAA gave NATI inspections an overall rating of satisfactory or unsatisfactory. The task force of retired inspectors evaluated the number and criticality of the severity codes, as well as the number of inspections performed. An overall unsatisfactory inspection rating was given when (1) there was at least one severity level 3 adverse comment, (2) there were three or more severity level 2 adverse comments, or (3) there were four or more severity level 1 comments.

For the 21 airlines with MAC contracts, the average percentage of unsatisfactory inspections was 14 percent. The 120 airlines without MAC contracts had an unsatisfactory inspection average of 10 percent.

Table 2

List of Part 121 Airlines According to the Rate of Severity Level 3 Adverse
Comments (Airlines With Military Contracts Are in Capital Letters)

<u>Airline</u>	<u>Number of inspections</u>	<u>Percentage of unsatisfactory inspections</u>	<u>Rate of severity level 3 comments</u>	<u>Had military contract</u>
Arista International	14	57.1	164.3	No
Southern Flyer, Inc.	6	83.3	133.3	No
Air National	9	33.3	122.2	No
RICH INTERNATIONAL	26	50.0	119.2	YES
Galaxy	6	50.0	116.7	No
UNITED AIR CARRIERS	18	50.0	83.3	YES
Conner Airlines	9	33.3	77.8	No
Brennan & Hargreaves	8	37.5	75.0	No
ARROW AIRWAYS	73	41.1	69.9	YES
SOUTH PACIFIC ISLAND AIRWAYS	19	21.1	63.2	YES
Cam Air	43	44.2	62.8	No
Air North	22	40.9	59.1	No
JET CHARTER	20	30.0	45.0	YES
PAN AMERICAN	184	19.6	43.5	YES
Southern Air Transport	28	21.4	42.9	No
Tower Air	10	30.0	40.0	No
Pacific East Air, Inc.	15	13.3	40.0	No
Viking International Airlines	33	30.3	39.4	No
Northeastern International	46	34.8	39.1	No
Horizon Air	18	22.2	38.9	No
Air Pac, Inc.	19	26.3	36.8	No
People Express Airlines	129	24.0	35.7	No
Eagle Aviation, Inc.	17	29.4	35.3	No
CAPITOL INTERNATIONAL AIRWAYS	37	24.3	35.1	YES
Newair, Inc.	73	23.3	32.9	No
Markair	28	25.0	32.1	No
Aloha Airlines	22	13.6	31.8	No
KEY AIRLINES	13	15.4	30.8	YES
Buffalo Airways	10	30.0	30.0	No
Emerald Air	71	22.5	29.6	No
Air Florida, Inc.	42	21.4	28.6	No
Caribbean Air Services	7	28.6	28.6	No
Rosenbalm Aviation	30	16.7	26.7	No
FLYING TIGER LINE	114	15.8	26.3	YES
Aspen Airways	23	13.0	26.1	No
TRANSAMERICA AIRLINES	62	16.1	25.8	YES
Jet America	35	22.9	25.7	No
WORLD AIRWAYS	34	17.6	23.5	YES
Air North, Inc.	70	12.9	22.9	No
Excellair, Inc.	22	18.2	22.7	No
Combs Freightair/Front Co.	58	24.1	22.4	No
AIR RESORTS	18	55.6	22.2	YES

<u>Airline</u>	<u>Number of inspections</u>	<u>Percentage of unsatisfactory inspections</u>	<u>Rate of severity level 3 comments</u>	<u>Had military contract</u>
Continental Airlines	271	16.2	21.8	No
Bo-S-Aire	23	13.0	21.7	No
EASTERN AIRLINES	384	14.8	21.4	YES
Marco Island Airways	19	15.8	21.1	No
Provincetown-Boston	157	15.9	21.0	No
Bar Harbor	81	14.8	21.0	No
Air California	43	11.6	20.9	No
Summit Airways	39	15.4	20.5	No
Rio Airways	144	14.6	20.1	No
T-Bird Air	5	40.0	20.0	No
HAWAIIAN AIRLINES	36	19.4	19.4	YES
International Air Service	48	14.6	18.8	No
Florida West Airlines	11	13.6	18.2	No
Alaska Airlines	66	12.1	18.2	No
AMERICAN TRANS AIR	35	8.6	17.1	YES
EVERGREEN INTERNATIONAL	79	10.1	16.5	YES
Wright	87	11.5	14.9	No
REEVE ALEUTIAN AIRWAYS	7	14.3	14.3	YES
Freedom Airlines	35	14.3	14.3	No
Pacific Southwest	50	6.0	14.0	No
UNITED AIRLINES	384	9.6	13.5	YES
Frontier Airlines, Inc.	113	8.8	13.3	No
Delta Airlines	433	10.9	13.2	No
Wings West	31	9.7	12.9	No
AIRLIFT INTERNATIONAL	16	12.5	12.5	YES
US Air, Inc.	336	8.6	12.5	No
Best Airlines	24	12.5	12.5	No
Sea Airmotive, Inc.	33	6.1	12.1	No
Air One	51	7.8	11.8	No
Ransome Airlines	112	9.8	11.6	No
Southwest Airlines Co.	113	9.7	11.5	No
Lincoln	26	15.4	11.5	No
Atlantic Southeast	44	6.8	11.4	No
Chaparral Airlines	89	9.0	11.2	No
Trans-Central Airlines	81	8.6	11.1	No
Imperial Airlines	28	10.7	10.7	No
Providence	10	30.0	10.0	No
Air Virginia, Inc.	91	11.0	9.9	No
Muse Air Corp.	41	4.9	9.8	No
Western	113	15.9	9.7	No
Midway Airlines	52	7.7	9.6	No
Atlantic Gulf Airlines	32	15.6	9.4	No
Coastal Airlines, Inc.	11	9.1	9.1	No
Air Atlanta, Inc.	33	6.1	9.1	No
Royale Airlines, Inc.	221	6.8	9.0	No
Britt Airlines	213	9.4	8.9	No
NORTHWEST AIRLINES, INC.	238	5.9	8.4	YES
Simmons Airlines, Inc.	83	10.8	8.4	No

<u>Airline</u>	<u>Number of inspections</u>	<u>Percentage of unsatisfactory inspections</u>	<u>Rate of severity level 3 comments</u>	<u>Had military contract</u>
Jet Fleet Corp.	12	8.3	8.3	No
DHL Cargo/Air Polynesia	25	8.0	8.0	No
Frontier Horizon	25	8.0	8.0	No
America West	51	7.8	7.8	No
Braniff, Inc.	184	6.0	7.6	No
Air Illinois	14	7.1	7.1	No
Gulf Air Transport	15	6.7	6.7	No
Fisher Brothers Aviation	31	6.5	6.5	No
Piedmont	170	7.1	6.5	No
SMB Stage Lines	47	4.3	6.4	No
Republic Airlines	315	3.8	6.3	No
Ocean Air	33	6.1	6.1	No
Surburban Airlines	98	7.1	6.1	No
Pennsylvania Airlines	98	6.1	6.1	No
Pilgram	88	6.8	5.7	No
Wien Air Alaska	36	11.1	5.6	No
Sunworld Intl Airways	21	14.3	4.8	No
American Airlines, Inc.	450	4.0	4.7	No
Metro Airlines	171	5.8	4.7	No
TRANS WORLD AIRLINES, INC.	283	4.2	4.6	YES
Cascade Airways, Inc.	44	4.5	4.5	No
American International Air, Inc.	50	12.0	4.0	No
Rocky Mountain Airlines	27	3.7	3.7	No
Puerto Rico International Airlines	83	3.6	3.6	No
Federal Express	112	1.8	3.6	No
New York Air	88	18.2	3.4	No.
Interstate Airlines	31	3.2	3.2	No
Orion	64	6.3	3.1	No
Zantop International Airlines	66	4.5	3.0	No
Ryan Aviation Corp.	43	2.4	2.4	No
Ozark Airlines	158	1.3	1.3	No
Sun Country	13	7.7	0.0	No
Florida Express	28	3.6	0.0	No
Challenge Air Transfer	13	0.0	0.0	No
Air Wisconsin	60	1.7	0.0	No
Basler Flight Service	1	0.0	0.0	No
Pacific Alaska Airlines	17	0.0	0.0	No
Bangor International	5	0.0	0.0	No
Sierra Pacific Airlines	7	0.0	0.0	No
Blue Bell	7	14.3	0.0	No
Trans Air Link	11	0.0	0.0	No
Airborne Express, Inc.	78	0.0	0.0	No
Jet East	12	0.0	0.0	No
Pacific Air Express	19	0.0	0.0	No
Trans Florida Airline	11	0.0	0.0	No
All Star	10	0.0	0.0	No

<u>Airline</u>	<u>Number of inspections</u>	<u>Percentage of unsatisfactory inspections</u>	<u>Rate of severity level 3 comments</u>	<u>Had military contract</u>
Northern Air Cargo	8	0.0	0.0	No
Mid Pacific Island	20	0.0	0.0	No
Great American Airways	14	0.0	0.0	No
General Aviation, Inc.	10	0.0	0.0	No
ERA Helicopters	27	0.0	0.0	No

Source: FAA, Memorandum on Evaluation of National Air Transportation
Inspection Program Inspection Reports, April 1985.

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